

AMENDMENTS TO THE SPECIFICATION

IN THE TITLE

Replace the title of the invention with a new title:

--DISPLAY APPARATUS CONTROLLING BRIGHTNESS OF CURRENT-
CONTROLLED LIGHT EMITTING ELEMENT--

IN THE SPECIFICATION

Replace the paragraph beginning at page 1, line 6 with:

The present invention relates to a display apparatus in which brightness of a ~~current~~ current-controlled light emitting element is controlled.

Replace the paragraph beginning at page 3, line 21 with:

Fig. 21 is a graph that shows voltage-current characteristics of a TFT before deterioration and a TFT after deterioration. In Fig. 21, a curve l_3 indicates characteristics of voltage V_{gs} between a gate and a source of the TFT before deterioration and drain current I_d , and a curve l_4 indicates characteristics of the TFT after deterioration. Moreover, V_{th4} and V_{th4}' are threshold voltages of the TFT before deterioration and after deterioration. As shown in Fig. 21, since the threshold voltages of the TFT before deterioration and after deterioration differ, when the same electric potential V_{D4} is

written, drain currents I_{d2} and I_{d3} for each have different values. Therefore, by applying the electric potential V_{D4} , in spite of the fact that only I_{d2} has flown in the organic EL element before the deterioration of the TFT which is the driver element, no current except I_{d3} ($<I_{d2}$) flows after the deterioration of the TFT and light of a predetermined brightness cannot be displayed. Due to this, when a threshold voltage of a TFT that controls current flowing through a ~~current~~ current-controlled light emitting element (hereinafter, "current light emitting element") fluctuates, in spite of the fact that the same electric potential is applied, the current flowing through the current light emitting element fluctuates and as a result, brightness that is displayed on a display section of a display apparatus becomes non-uniform thereby causing the deterioration of the image quality.

Replace the paragraph beginning at page 4, line 20 with:

A display apparatus according to the present invention includes a data writing section that includes a data line and a first switching section which controls writing of electric potential that is supplied through the data line, and writes an electric potential corresponding to an emission brightness; and a threshold voltage detecting section that includes a driver

transistor which controls current according to the electric potential written by the data writing section; a second switching section which controls conduction between a gate electrode and a drain electrode of ~~a driver element which controls current according to the electric potential written by the data writing section and which has a thin film transistor~~ the driver transistor; and a ~~current~~ current-controlled light emitting element that ~~displays~~ emits light with a brightness corresponding to a current flowing therethrough, and ~~is capable of functions as a capacitor for~~ supplying electric charge to the drain electrode or a source electrode of the driver element transistor, ~~as a capacitor that stores electric charge, and wherein the threshold voltage detecting section~~ detects a threshold voltage of the driver element transistor.

Replace the paragraph beginning at page 21, line 7 with:

Moreover, in the display apparatus according to the first embodiment, the TFT 11 is provided between the data writing section 1 and the threshold voltage detecting section 2. Since the data writing section 1 and the threshold voltage detecting section 2 are disconnected by putting the TFT 11 OFF, it is possible to prevent effect of an operation on one side on the operation on the other side. For this reason, the threshold voltage detecting section 12 and the data writing section 21 can

operate independently. Here, the timing chart of the pixel circuit shown in Fig. 1 when the operations of the data writing and the detection of the threshold voltage are ended at the same timing is indicated in Fig. 5. (a) to (d) of Fig. 5 are timing charts indicating the pre-processing step, the threshold voltage detection step, the data writing step, and the light emitting step respectively, similarly as indicated by (a) to (d) of Fig.

2. As mentioned above, since independent operations of the threshold voltage detecting section 2 and the data writing section 1 are possible, it is possible that they end at the same timing as shown in Fig. 5. Further, by ending the detection of the threshold voltage and the writing of the data at the same timing, reduction in time for all steps can be realized.

Replace the paragraph beginning at page 51, line 14 with:

A step shown in (b) of Fig. 18 and Fig. 19B is a threshold voltage detection step of detecting the threshold voltage of the TFT 46 which is the driver element, by the threshold voltage detecting section 42. After the end of accumulation of the positive electric charge in the organic EL element 47 at the pre-processing step, the common line 50 becomes zero potential from the positive electric potential. Since the scan line 52 and the scan line 53 are both with the positive electric potential as they are, by maintaining the ON state of the TFT 48 and the TFT

49, the gate electrode and the drain electrode of the TFT 46 are shorted, and the TFT 46 is connected to ground. Therefore, zero electric potential is applied to the gate electrode and the drain electrode of the TFT 46. Here, since the organic EL element 47 is connected to the source electrode of the TFT 46, based on the negative electric charge stored in the anode side of the organic EL element 47, the voltage between the gate and the source of the TFT 46 becomes greater than the threshold voltage and the TFT 46 is put ON. The drain electrode of the TFT 46 is connected to ground through the TFT 49 which is ON, whereas the source electrode of the TFT 46 is connected to the organic EL element 47 in which the negative charge is stored and negative electric potential is applied to the source electrode. Therefore, the electric potential difference is developed between the gate electrode and the source electrode of the TFT 46 and the current flows from the drain electrode to the source electrode. Due to the current flow, an absolute value of the negative charge that was stored in the organic EL element 47 decreases gradually and at a point where the voltage between the gate and the source of the TFT 46 is reduced up to the threshold voltage ($=V_{th3}$), the TFT 46 is put OFF and the negative charge stored in the organic EL element 47 stops decreasing. Since the gate electrode of the TFT 46 is connected to ground through the TFT 49 which is ON, an electric potential of the source electrode of the TFT 46 is held

at ($-V_{th3}$). Due to this, the threshold voltage ($-V_{th3}$) of the TFT 46 appears at the source electrode of the TFT ~~64~~46 and the threshold voltage of the TFT 46 is detected. Further, at this step, the detection of the threshold voltage of the TFT 46 is performed by components of the threshold voltage detecting section 42 only and an operation of components of the data writing section 41 is not necessary.